



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

Charles D. Baker
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Secretary

Martin Suuberg
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August 26, 2015

Mr. David Sun
Sunco, Inc. d/b/a Eastman Street
Woodworks
35 Eastman Street
Easton, MA 02375

RE: EASTON
Transmittal No.: X262505
Application No.: SE-14-027
Class: *SM-50*
FMF No.: 525767
AIR QUALITY PLAN APPROVAL

Dear Mr. Sun:

The Massachusetts Department of Environmental Protection (“MassDEP”), Bureau of Air and Waste, has reviewed your Non-major Comprehensive Plan Application (“Application”) listed above. This Application was submitted, as agreed to in Administrative Consent Order No. ACOP-SE-14-9006-27 dated May 29, 2014, regarding the proposed modification and continued operation of coating and finishing equipment at your cabinet manufacturing and assembly facility located at 35 Eastman Street in Easton, Massachusetts (“Facility”). The Application bears the seal and signature of Paul D. Steinberg, Massachusetts Registered Professional Engineer Number 38137.

The Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 “Air Pollution Control” regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-N, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP’s review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator (“Permittee”) must comply in order for the Facility to be operated in compliance with this Plan Approval.

1. DESCRIPTION OF FACILITY AND APPLICATION

The Permittee currently operates a commercial cabinetry manufacturing facility. The facility includes coating and finishing operations in addition to cabinet manufacturing and assembly. Cabinets are custom made on-site. Wood pieces are cut and sanded as needed for each order. The facility includes spray paint equipment and a gas fired curing oven to custom finish cabinets utilizing a variety of primers and coatings. The wood product surface coating process and associated cleaning results in air emissions of Volatile Organic Compounds (VOC), Hazardous Air Pollutants (HAP) as listed in the 1990 Clean Air Act (CAA) Amendments, Section 112(b), and Non-Criteria Pollutants (Acetone and parachlorobenzotrifluoride). The VOC exempt organic compound Acetone is contained in some of the coatings and is used as a cleaning agent. The VOC exempt organic compound parachlorobenzotrifluoride (PCBTF) is also a component of a cleaning agent/thinner used. The wood surface coating process equipment, e.g. paint spray booths, were initially installed and operated in accordance with the plan approval exemption at 310 CMR 7.03(16). An increase in growth prospects has resulted in a need for operational modifications at the facility which will increase potential emissions of VOC, HAP and non-criteria pollutants (i.e. Acetone and PCBTF).

The facility wood surface coating operation currently consists of five (5) Global Finishing Solutions Model No. IFPG-886-C open-faced industrial spray booths and one (1) Superfici Compact Flat-Line automated spray booth. The coated cabinet pieces are conveyed through a Production Systems, Inc., High Velocity Convection Air oven for drying. All spray booths are designed to comply with the specifications of 310 CMR 7.03(16).

Facility processes and ancillary equipment not subject to this Plan Approval include an acetone distillation unit that recovers acetone used in the Flat-Line automated spray booth and woodworking operations which are vented to a Filtered Air Systems, FAS-300 Central Dust Collection System with Spunbond® anti-static, pleated tube media cartridge filters designed to achieve a 99.98% control efficiency. Exhaust from the dust collection system is recycled back into the building during cold weather and exhausted outside during warm weather. The distillation unit and woodworking operations, as proposed, are exempt from plan approval requirements in accordance with 310 CMR 7.02(2)(b)7.

Cabinet assembly operations currently use adhesives and sealants which contain no VOC. In accordance with 310 CMR 7.18(30)(a)4.b., adhesives and sealants that contain less than 20 grams of VOC per liter of adhesive, or sealant, as applied (less water and exempt compounds), are not subject to the requirements of 310 CMR 7.18(30).

The facility also has a number of fuel utilization facilities, all of which fire natural gas as the sole fuel, are below thresholds listed at 310 CMR 7.02(2)(b)15., and are exempt from plan approval requirements. In accordance with 310 CMR 7.02(2)(d), the facility shall maintain the required records for all equipment proposed as exempt from plan approval.

Best Available Control Technology (BACT) is defined in Table 2.

2. EMISSION UNIT IDENTIFICATION

Each Emission Unit (“EU”) identified in Table 1 is subject to and regulated by this Plan Approval:

Table 1			
EU	Description	Design Capacity	Pollution Control Device (PCD)
EU1 <u>Wood Surface Coating Operations</u>	5 Global Open Face Industrial (Model # IFPG-886-C) spray booths	Approximately 4.2 gallons per hour (per booth)	HVLP spray guns (or equivalent)
	1 Superfici Compact Spray Finish Line with Air Blade Dryer (electric)	Approximately 19.0 gallons per hour	Fabric filter

Table 1 Key:

EU = Emission Unit

HVLP = High Volume Low Pressure

PCD = Pollution Control Device

3. APPLICABLE REQUIREMENTS

A. OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2:

Table 2			
EU	Operational / Production Limit	Air Contaminant	Emission Limit
EU1	1. Face velocity of air at filter shall not exceed 200 feet per minute	Visible Emissions	0% Opacity
	2. ≥ 98 % by weight particulate control	PM ^(Note 1)	0.5 TPM
	3. ≥ 65 % transfer efficiency		2.0 TPY
	4. VOC usage, as contained in coatings, surface preparation solution and cleaning solvent, shall not exceed 4.25 tons per month.	VOC	4.25 TPM
	5. VOC usage, as contained in coatings, surface preparation solution and cleaning solvent, shall not exceed 17.0 tons per consecutive 12-month period.		17.0 TPY

Table 2			
EU	Operational / Production Limit	Air Contaminant	Emission Limit
EU1	6. VOC content of any coatings used shall not exceed the emission limitations contained in 310 CMR 7.18(23)(e), Table 310 CMR 7.18(23)(e)1. ^(Note 2)	VOC	<u>Semitransparent stain</u> ≤ 89.4 lbs VOC per gallon solids, as applied <u>Wash coat</u> ≤ 35.6 lbs VOC per gallon solids, as applied <u>Opaque stain</u> ≤ 13.0 lbs VOC per gallon solids, as applied <u>Sealer</u> ≤ 23.4 lbs VOC per gallon solids, as applied <u>Pigmented coat</u> ≤ 15.6 lbs VOC per gallon solids, as applied <u>Clear topcoat</u> ≤ 23.4 lbs VOC per gallon solids, as applied
	7. Limit the VOC content of any surface preparation solution used prior to coating as required at 310 CMR 7.03(16)(g). ^(Note 3)		1.67 pounds of VOC per gallon
	8. HAP usage, as contained in coatings, surface preparation solution and cleaning solvent, shall not exceed 1.25 tons per month.	HAP	1.25 TPM
	9. HAP usage, as contained in coatings, surface preparation solution and cleaning solvent, shall not exceed 5.0 ton per consecutive 12-month period.		5.0 TPY
	10. Non-criteria pollutants ^(Note 4) as contained in coatings, surface preparation solution and cleaning solvent, shall not exceed 16.5 tons per month.	Non-criteria pollutants (i.e. VOC exempt organic compounds)	16.5 TPM
	11. Non-criteria pollutants ^(Note 4) as contained in coatings, surface preparation solution and cleaning solvent, shall not exceed 66.0 tons per consecutive 12-month period.		66.0 TPY
Facility-Wide	12. VOC usage, as contained in all materials used at the facility, shall not exceed 17.0 tons per consecutive 12-month period.	VOC	17.0 TPY
	13. HAP usage, as contained in all materials used at the facility, shall not exceed 5.0 ton per consecutive 12-month period.	HAP	5.0 TPY

Table 2			
EU	Operational / Production Limit	Air Contaminant	Emission Limit
Facility -Wide	14. Non-criteria pollutants ^(Note 4) as contained in all materials used at the facility shall not exceed 66.0 tons per consecutive 12-month period.	Non-criteria pollutants (i.e. VOC exempt organic compounds)	66.0 TPY

Table 2 Notes

Note 1: Includes Particulate Matter having a diameter of 10 microns or less (PM₁₀) and particulate matter having a diameter of 2.5 microns or less (PM_{2.5}).

Note 2: The Permittee has proposed the emission limitations of 310 CMR 7.18(23)(e), Table 310 CMR 7.18(23)(e)1.as BACT for this application. The Permittee is not currently subject to the requirements at 310 CMR 7.18(23).

Note 3: The Permittee has proposed the requirements of 310 CMR 7.03(16) as BACT for this application. The Permittee is not subject to the requirements at 310 CMR 7.03(16).

Note 4 = In accordance with the definitions a 310 CMR 7.00, Acetone (CAS No. 67641) and PCBTF are organic compounds that are not included in the definition of VOC.

Table 2 Key:

CAS No.= Chemical Abstract Service number

CMR = Code of Massachusetts Regulations

EU = Emission Unit

HAP = Total combined Hazardous Air Pollutant(s)

lbs = Pounds

PCBTF = Parachlorobenzotrifluoride (CAS No. 98566)

PM = Total Particulate Matter

TPM = Tons per month

TPY = Tons per consecutive 12-month period

VOC = Volatile Organic Compound(s)

% = Percent

≥ = greater than or equal to

B. COMPLIANCE DEMONSTRATION

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5:

Table 3	
EU	Monitoring and Testing Requirements
EU1	1. The Permittee shall monitor each month, pounds of VOC as contained in materials used.
	2. The Permittee shall monitor each month, pounds of HAP as contained in materials used.
	3. The Permittee shall monitor each month, pounds of VOC exempt organic compounds (e.g. Acetone, PCBTF, etc) as contained in materials used.
	4. The Permittee shall ensure that all spray booths are equipped with instrumentation to continuously monitor the pressure drop across the spray booth fabric filters, when operating to ensure manufacturer's recommended specifications for collection efficiency are being met.
	5. The Permittee shall, upon request of the MassDEP, perform or have performed tests to demonstrate compliance with the emission limitations at Table 310 CMR 7.18(23)(e)1. Testing shall be conducted in accordance with USEPA Method 24 and/or Method 25 as described in CFR Title 40 Part 60, or by other methods approved by the MassDEP and USEPA.
Facility-wide	6. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration
	7. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and Regulation 310 CMR 7.13
	8. At least 30 days prior to emission testing, the Permittee shall submit to MassDEP for approval a stack emission pretest protocol.
	9. Within 45 days after emission testing, the Permittee shall submit to MassDEP a final stack emission test results report.

Table 3 Key:

CFR = Code of Federal Regulations

CMR = Code of Massachusetts Regulations

EU = Emission Unit

HAP = Hazardous Air Pollutant(s)

MassDEP = Massachusetts Department of Environmental Protection

PCBTF = Parachlorobenzotrifluoride (CAS No. 98566)

USEPA = United States Environmental Protection Agency

VOC = Volatile Organic Compound

Table 4

EU	Record Keeping Requirements
EU 1	<ol style="list-style-type: none"> 1. Sufficient records shall be prepared and maintained to demonstrate compliance for each calendar month. Such records shall include, but are not limited to: <ol style="list-style-type: none"> a) For each coating, as applied: <ol style="list-style-type: none"> 1. Gallons of coating used; 2. Coating density (pounds per gallon); 3. Pounds of VOC per gallon of coating; 4. Pounds of HAP per gallon of coating; 5. Pounds of Acetone per gallon coating; 6. Pounds of PCBTF per gallon coating; 7. Pounds of solids per gallon of coating; 8. Pounds of water per gallon of coating; 9. Pounds of other non-VOC liquid per gallon coating; and 10. Pounds of VOC per gallon of solids as applied. b) Gallons of exempt/non-compliance coatings used; c) Gallons of cleanup solution used and pounds VOC, PCBTF and/or acetone per gallon; d) Maintenance records of filter pad replacement and disposal. 2. The Permittee shall record the pressure drop across the spray booth fabric filters in each spray booth at least once per day during which coating operations occur and record the acceptable limit of pressure drop as specified by the fabric filter or spray booth manufacturer.
Facility-wide	<ol style="list-style-type: none"> 3. The Permittee shall maintain adequate records on-site to demonstrate compliance status with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve-month period (current month plus prior eleven months). These records shall be compiled no later than the 15th day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at http://www.mass.gov/eea/agencies/massdep/air/approvals/limited-emissions-record-keeping-and-reporting.html#WorkbookforReportingOn-SiteRecordKeeping. 4. The Permittee shall maintain records of monitoring and testing as required by Table 3. 5. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for the EU(s) and PCD(s) approved herein on-site. 6. The Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s), PCD(s) and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.

Table 4	
EU	Record Keeping Requirements
	7. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s) PCD(s) and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
Facility-wide	8. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	9. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.
	10. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.

Table 4 Key:

CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
EU = Emission Unit
HAP = Hazardous Air Pollutant(s)
MassDEP = Massachusetts Department of Environmental Protection
PCBTf = Parachlorobenzotrifluoride (CAS No. 98566)
PCD = Pollution Control Device
SOMP = Standard Operating and Maintenance Procedure
USEPA = United States Environmental Protection Agency
VOC = Volatile Organic Compound

Table 5	
EU	Reporting Requirements
Facility-wide	1. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	2. The Permittee shall notify the Southeast Regional Office of MassDEP, BAW Compliance & Enforcement Chief by telephone: 508-946-2817 or fax : 508-947-6557, as soon as possible, but no later than three (3) business day after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to Compliance & Enforcement Chief at MassDEP within ten (10) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
	3. The Permittee shall report to MassDEP, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval.

Table 5 Key:

BAW = Bureau of Air and Waste
CMR = Code of Massachusetts Regulations
EU = Emission Unit
MassDEP = Massachusetts Department of Environmental Protection

4. **SPECIAL TERMS AND CONDITIONS**

A. The Permittee is subject to, and shall comply with, the Special Terms and Conditions as contained in Table 6 below:

Table 6	
EU	Special Terms and Conditions
EU 1	1. The Permittee shall ensure that all spray applications utilize one of the following methods and be maintained and operated in accordance with the recommendations of the manufacturer: Electrostatic spray application; HVLP spray application; or any other coating application method that achieves a transfer efficiency equivalent to electrostatic or HVLP spray application and is approved by the MassDEP.
	2. Spray guns shall be cleaned in a device that: a) minimizes solvent evaporation during the cleaning, rinsing, and draining operations; b) recirculates solvent during the cleaning operation so that the solvent is reused; and, c) collects spent solvent in a container with a tight-fitting cover so that it is available for proper disposal or recycling.
	3. Each paint spray booth shall utilize two or more layers of dry fiber mat filter with a total thickness of at least two inches or an equivalent system that achieves the proposed particulate control efficiency of at least 98 percent by weight.
Facility-wide	4. The Permittee may reconcile the VOC, HAP and/or VOC exempt organic compounds contained in any hazardous waste shipped during a month when determining monthly emissions. The facility shall maintain hazardous waste disposal records and purchase records for VOC, HAP and/or VOC exempt organic compound containing materials for this purpose. Such records shall verify the VOC, HAP and/or specific VOC exempt organic compounds quantity present in the waste being shipped if reconciling monthly emissions.
	5. The Permittee shall conduct all handling and transferring operations involving VOC, HAP and/or VOC exempt organic compound containing solvents in a way that minimizes spills and releases of VOC, HAP and/or VOC exempt organic compounds.
	6. The Permittee shall ensure the containers of VOC, HAP and/or VOC exempt organic compound containing solvents are in good condition and do not leak, and shall remain closed, except to add or remove material from them.
	7. This Plan Approval supersedes the facility wide acetone usage limitations established in ACOP-SE-14-9006-27 at Section III., Paragraph 7.A. and the corresponding recordkeeping requirement at Section III., Paragraph 7.B.

Table 6 Key:

EU = Emission Unit

HAP = single and/or total combined Hazardous Air Pollutant(s)

HVLP = High Volume Low Pressure

MassDEP = Massachusetts Department of Environmental Protection

VOC = Volatile Organic Compound(s)

- B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including, but not limited to, rain protection devices known as “shanty caps” and “egg beaters.”
- C. The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7, for the Emission Units that are regulated by this Plan Approval:

Table 7				
EU	Stack Height Above Ground (feet)	Stack Inside Exit Dimensions (feet)	Stack Gas Exit Velocity Range (feet per second)	Stack Gas Exit Temperature Range (°F)
EU 1 Spray Booths	50	0.85	41-45	65-75
EU1 Superfici Line	50	1.92	41-45	65-100

Table 7 Key:
EU = Emission Unit
°F = degrees Fahrenheit

5. GENERAL CONDITIONS

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.
- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.

- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.
- J. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain “Fail-Safe Provisions,” which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

7. APPEAL PROCESS

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact Peter Russell by telephone at (508) 946-2821, or in writing at the letterhead address.

*This final document copy is being provided to you electronically by the
Department of Environmental Protection. A signed copy of this document
is on file at the DEP office listed on the letterhead.*

Thomas Cushing
Permit Chief
Bureau of Air and Waste

Enclosure

ecc: Easton Board of Health
Easton Fire Department
Susan S. Smits, Mabbett & Associates, Inc.
MassDEP/Boston – Yi Tian
MassDEP/SERO – Maria Pinaud, Peter Russell